

CLAIM AMENDMENTS

1-11. (Cancelled)

12. (New) A method for manufacturing a test sensor, comprising:

forming a multiple layer device, including depositing a metallic layer onto a substrate material by physical vapor deposition, and depositing an electrically non-conductive layer adjacent said metallic layer by plasma enhanced chemical vapor deposition; and

applying an amount of laser energy to said multiple layer device to selectively remove a portion of said intermediate layer and a corresponding portion of either said metallic layer or said non-conductive layer.

13. (New) The method of claim 12 in which said depositing an electrically non-conductive layer comprises depositing an intermediate layer on said metallic layer, and depositing said electrically non-conductive layer on said intermediate layer.

14. (New) The method of claim 13, wherein said amount of laser energy is in the range of approximately 40 mJ/cm^2 to 450 mJ/cm^2 .

15. (New) The method of claim 13, wherein said laser energy includes an ion-beam.

16. (New) The method of claim 13, wherein said laser energy includes an electron beam.

17. (New) The method of claim 13, wherein the metallic layer includes at least one of copper, silver, gold, platinum, palladium, nickel, or aluminum.

18. (New) The method of claim 13, wherein the electrically non-conductive layer has a thickness less than or substantially equal to $1 \mu\text{m}$.

19. (New) The method of claim 13, wherein the intermediate layer is made of polytetrafluorethylene.

20. (New) The method of claim 19, wherein the intermediate layer is deposited onto said metallic layer by plasma enhanced chemical vapor deposition.

21. (New) The method of claim 13, wherein the substrate is made of a polymer material.

22. (New) The method of claim 21, wherein the substrate is flexible.

23. (New) The method of claim 13, further comprising:
depositing at least one of a second metallic layer, a second intermediate layer, or a second non-metallic conductive layer on said multiple layer device.

24. (New) The method of claim 13, further comprising:
removing said corresponding portion of said non-conductive layer.

25. (New) The method of claim 13, further comprising:
performing plasma activation before depositing said metallic layer, said non-conductive layer, or said intermediate layer.